RIGHT WHALE NEWS

An independent forum for right whale conservation and recovery,
published four times a year in February, May, August, and November

Volume 18 Number 2 ***May 2010***

A Report from the Calving Ground

Monica Zani (New England Aquarium)
&
Katie Jackson (Florida Fish and Wildlife Conservation Commission)

A few months after the right whale calving season ends, as time passes, we forget about all the long hours, sleepless nights, and endless emails and focus on the outcome. The four-month-long season can encounter coordination and logistical difficulties, but summarizing the efforts of the aerial survey teams, biopsy teams, volunteer networks, and state and federal managers is also a challenge! This report describes the calving season by the (preliminary) numbers, and would not have been possible without the collaboration of all involved.

The South Carolina/Northern Georgia (SCGA) surveys were conducted by Wildlife Trust from 15 November 2009 through 15 April 2010. The three components of the Early Warning System (EWS) surveys were conducted 1 December 2009 through 31 March 2010 by Wildlife Trust for the Northern EWS, New England Aquarium for Central EWS, and the Florida Fish and Wildlife Conservation Commission (FWC) for the Southern EWS. A small number of right whales occupied the waters off Florida into late March, and the FWC flew additional, supplemental surveys in April that covered the Southern Seasonal Management Area (SMA), critical habitat, and offshore waters (see table below for details).

The season got off to a slow start for the aerial survey teams as effort was severely hampered with what seemed to be endless rain, wind, and fog that caused many frustrating days. However, the final outcome produced effort (total trackline miles flown) that was surprisingly similar to previous seasons for some teams. Survey effort and right whale sightings are summarized in Table 1.

The survey teams documented 19 mother-calf pairs. This number falls short of the 2009 season of 39 calves, but is close to the average for the last 10 years (22 calves). Of the 19 mother-calf pairs, four of the whales were documented with their first known calves *(*Catalog #3123, #3142,

#3157, and #3260). However, #3260 ("Skittle") lost her calf during the season just days after first being sighted with the calf. No carcass was ever found, so the cause of death of this calf is unknown. The calving interval for 2010 was calculated as 3.3 years (using the interval from the last known calving of the remaining 15 cows). This interval includes one 2-year interval from right whale #3180 ("Dragon") who lost her calf during the 2008 season.

Table 1. Number of surveys (partial and full surveys combined) flown, number of right whale sighting events (a single whale or multiple whales), number of right whales sighted (not all unique individuals), and trackline miles flown for each EWS team.

Survey (including contingencies)	Total No. of Surveys Flown	No. of right whale sighting events	No. of right whales	Total Trackline Miles Flown in Sea State 3 or Less (nm)	Total Trackline Miles Flown (nm)
S Carolina/Northern GA	44	33	84	19,161	19,674
Northern EWS	37	48	114	12,478	13,714
Central EWS	69	208	441	19,474	22,560
Southern EWS	60	237	601	15,055	15,875
Southern EWS (April)	3	1	2	1,507	1,507
TOTAL	213	527	1,242	67,675	73,330

In addition to the above, the combined efforts of the Marineland Right Whale Project and the Marine Resources Council (volunteer sighting network and coastal surveys) contributed about 70 sighting events in and adjacent to the critical habitat south of St. Augustine. Lastly, as in most seasons, right whales during the Southeast U.S. wintering and calving season were widely distributed. Figure 1 provides an example from a three-day period with good weather and good sighting effort.

There were no right whale strandings in the Southeast U.S. during the 2010 winter calving season. The 2008 calf of #1208 was sighted entangled off North Carolina in November and subsequently documented off Florida to be gear-free in January. There were no other new right whale entanglement cases documented by the aerial survey teams; however, two severely entangled humpback whales were documented and chronically entangled right whale *#3346* (*"Kingfisher")* was sighted several times.

Preliminary data from all sources indicate approximately 230 individual right whales were documented off the coasts of North Carolina, South Carolina, Georgia, and Florida during a period extending from November through April. This total includes cataloged whales, calves, and whales with temporary intermatch/season codes that have not yet been matched to the catalog. Contributing sources included the three EWS survey teams, South Carolina/Northern

Georgia survey team, UNCW/Duke USWTR survey teams, biopsy teams (FWC, Georgia Department of Natural Resources and NOAA Northeast Fisheries Science Center), Marineland Right Whale Project, Marine Resources Council (volunteer public sighting network) and opportunistic sightings by dredge observers, Coast Guard, Navy, harbor pilots, ship captains, and recreational boaters.

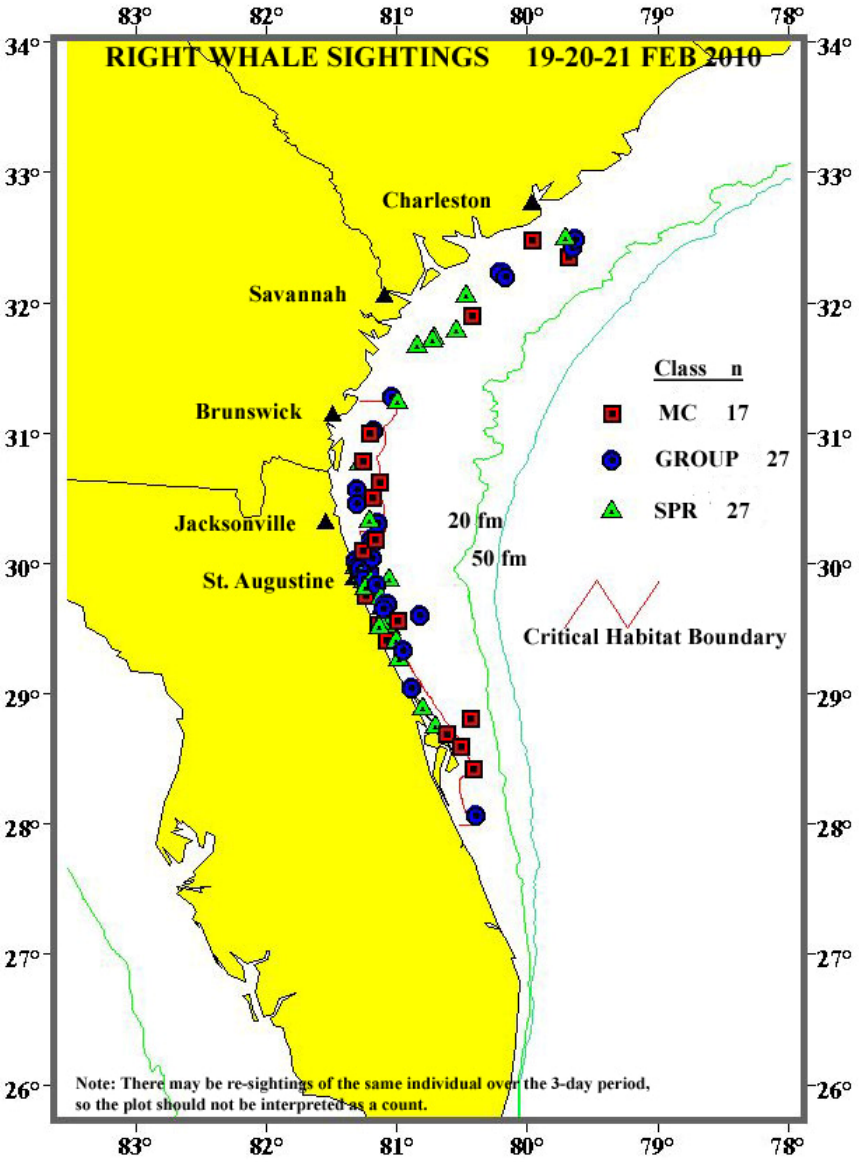

Figure 1. During the Southeast U.S. right whale wintering and calving season, right whales were widely distributed from South Carolina to Florida. An impression of this distribution is provided by this collaborative plot of sightings during a three-day period with good weather, good sighting conditions, and good survey effort. Key: MC=mother-calf pair, GROUP=group of three or more, SPR=single or non-mother-calf pair.

JAX USWTR Survey Effort Update

Contributed by William McLellan[1],Heather Foley[2], Rachel Hardee[1], Richard Holt[2], and Peter Nilsson[1] — [1]University of North Carolina Wilmington; [2]Duke University

Aerial and vessel surveys continue on a monthly basis at the proposed Undersea Warfare Training Range (USWTR) off the coast of Jacksonville, Florida. As of 20 May 2010, a total of 296 tracklines have been surveyed since January 2009, 131 of which were flown since January 2010 (Table 2). Since commencing vessel surveys in July 2009, a total of 17 surveys have been conducted, with six occurring in 2010. Two High-frequency Acoustic Recording Packages (HARPs) were recovered and downloaded this January. Both units were refurbished and are currently deployed.

Table 2. USWTR JAX tracklines and total nm surveyed by month in 2010.

		Month					
	Month	**January**	**February**	**March**	**April**	**May**	**Total**
Aerial	Number of tracklines surveyed	46	30	20	25	10	131
	nm surveyed	2117	1375	910	1116	438	5956
Vessel	Number of tracklines surveyed	3	0	2	0	1	6
	nm surveyed	93	0	78	0	36	207

Right whales (*Eubalaena glacialis*) have been observed in or near the JAX USWTR survey area three times since starting surveys in 2009 (Table 3). On 20 March 2010, a single, large right whale was sighted at 10:20 at the western end of a trackline. The whale was observed for 27 minutes prior to the birth of a neonate. The neonate appeared at the surface after the adult had remained submerged, out of view, for several minutes. The aerial survey team continued observations for approximately 19 minutes before leaving the site and returning to land. At this point, the Florida Fish and Wildlife Conservation Commission aerial survey team moved in to continue documentation. Using photos taken by the two aerial survey teams, the New England Aquarium later confirmed the female whale as "Derecha," #2360 in the North Atlantic Right Whale Catalog. The sighting of the birth is notable because it occurred outside existing critical right whale habitat, because of its proximity to the proposed USWTR site, and because it was only the second North Atlantic right whale birth observed (the other reported by Zani *et al*. *Aquatic Mammals* 2008 34(1): 21-24). The sighting is currently being prepared for publication. In addition to the witnessed birth, a lone male right whale (# 2303) was observed and photographed on 20 March at the western end of a trackline. On 2 April 2010, a right whale cow-calf pair was encountered during off-effort transit out to the range, approximately 2 nm from the western edge of the survey tracklines. The mother was identified as right whale #3360.

Table 3**.** North Atlantic right whale sightings during USTWR JAX surveys.

Date	Time	On/Off Effort	Latitude	Longitude	Number	Whale ID	Notes
20-Mar-10	10:20	On	30.047	80.697	2	2360 and calf	Observed birth
20-Mar-10	16:11	On	30.429	80.677	1	2303	
2-Apr-10	15:09	Off	30.366	80.728	2	3360 and calf	

Other cetacean species observed from 1 January through 20 May 2010 include sperm whales (*Physeter macrocephalus*), minke whales (*Balaenoptera acutorostrata*), short-finned pilot whales (*Globicephala macrorhynchus*), Risso's dolphins (*Grampus griseus*), bottlenose dolphins (*Tursiops truncatus*), and Atlantic spotted dolphins (*Stenella frontalis*). All marine mammal sightings have been posted to the OBIS SEAMAP website and can be searched by species for sighting date and location.

(For more information, see RWN May 2009 and August 2009)

Right Whales in Rhode Island Sound: April 2010

Contributed by Robert D. Kenney,
University of Rhode Island Graduate School of Oceanography

On Tuesday, 20 April 2010, a crew from the URI Dept. of Natural Resources Science doing an aerial survey for seabirds in Rhode Island Sound and Block Island Sound sighted six or seven North Atlantic right whales and one humpback during their survey. The NOAA Twin Otter was also flying in the vicinity, and the pilot of the URI survey passed on the information to the NOAA pilots.

According to initial reports through NOAA's Sighting Advisory System (SAS), the NOAA survey crew sighted 96 right whales that day in five separate aggregations—three in Rhode Island Sound, one more offshore over the inner shelf, and one at the entrance to Vineyard Sound. The largest group was the most offshore sighting of 40 whales about 12 nautical miles (nmi) south-southwest of Nomans Land, and 17 more whales were recorded about 12 nmi west of Nomans Land. An aggregation of 22 whales was observed about 15 nmi south of Sakonnet Point in eastern Rhode Island. Fifteen whales were seen about 8 nmi south of Brenton Point. A mother-calf pair was sighted about 2 nmi northwest of Gay Head (the western end of Martha's Vineyard)

at the entrance to Vineyard Sound. Feeding behavior was observed in all five aggregations. The NOAA team also sighted 8 fin whales, a humpback, a minke, and 10 white-sided dolphins.

The actual distribution was a little more complex than what was shown by the original report (Figure 2). The group of 40 whales was an aggregation of 38 and a separate pair. The group of 22 animals was actually four separate clusters of 7, 6, 6, and 3 whales, respectively. In addition, there were two single whales sighted offshore of most of the aggregations in Rhode Island Sound that had not been counted in the original reports, so the total number seen was 98.

By Thursday and Friday of that week, the news media provided stories in local, regional, and national newspapers and on television. The typical story reported that it was the largest aggregation of North Atlantic right whales ever observed off southern New England, with some going so far as to suggest that it was the largest group ever seen anywhere. Reporters who were still using the obsolete abundance estimate of 300 (a number that is still given on the NEFSC Protected Species Branch home page, http://www.nefsc.noaa.gov/psb/, tended to get the most excited—since that meant that a third of the population was in one area at the same time. Reporters also needed to be corrected from the mistaken impression that there had been a "pod" of 98 right whales migrating northward as a single social group.

The excitement died down quickly. There has been only one additional sighting report from the area—a single animal identified as a "probable" right whale, reported by the Coast Guard near the south shore of Rhode Island on 1 May (Figure 2).

There were several other sightings of right whales in southern New England waters this year (also shown in Figure 2). On 19 April, the day before the NOAA aerial survey recorded 98 whales, the Coast Guard reported two groups of 9 and 4 right whales west of Nomans Land, very near to where the NOAA survey found the aggregation of 17 the next day. There were two sightings in the western part of Nantucket Sound—off Oak Bluffs in northeastern Martha's Vineyard. There was an opportunistic report of three whales (verified by NEFSC) about 1.5 nmi off on 17 April, and a mother-calf pair seen on the 18th about 5 nmi off by the NOAA aerial survey team. There were three opportunistic sightings in the north-central part of Nantucket Sound—groups of 4 and 2 whales on 6 April and 1 or 2 whales on 19 April. Finally, right whales were seen along the south shore of Nantucket on two different days—opportunistic reports of two groups of 3 each on 31 January, and five groups totaling 14 animals reported by the NOAA aerial survey on 7 March.

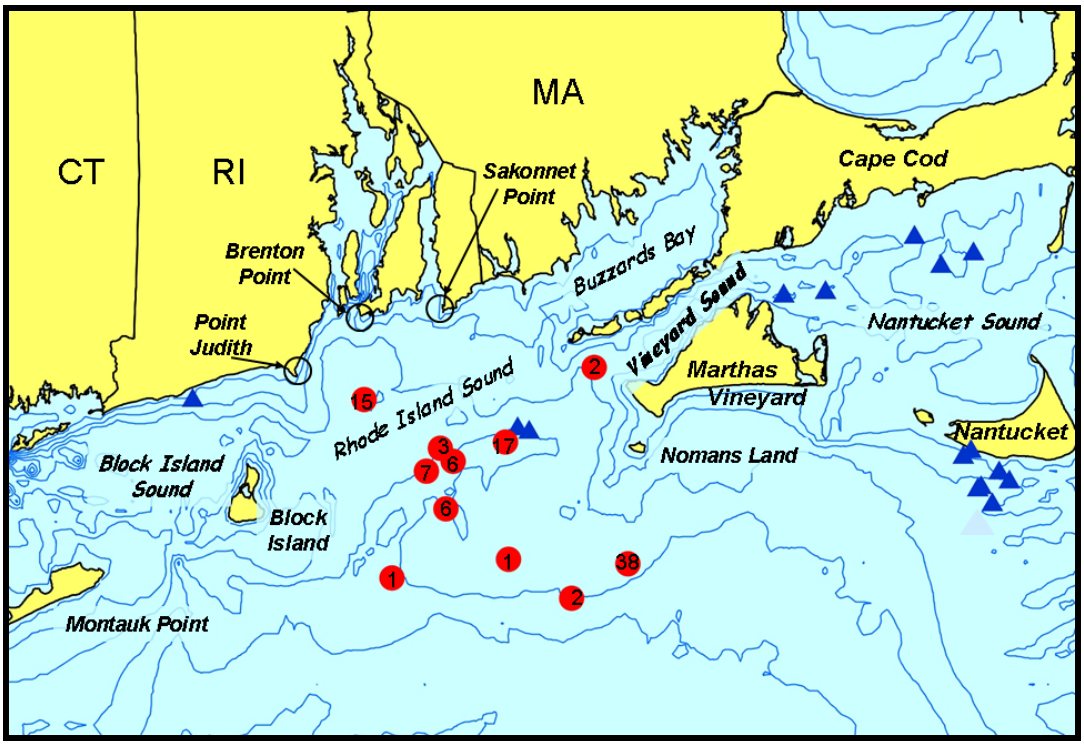

Figure 2. Distribution of 98 North Atlantic right whales sighted in or near Rhode Island Sound on 20 April 2010. Red circles indicate the numbers of animals reported. Blue triangles are all other right whale sightings reported to the NOAA Sightings Advisory System in this area of southern New England through the first week of May. There were also numerous sightings in Cape Cod Bay that are not shown here. Data from NMFS–SAS (2010); bathymetry is at 10-meter intervals.

Without having intensive surveys in the area, there is no way to know how long the whales were present in Rhode Island Sound—whether they were only there for 2–3 days or if they had been present for some longer time before first being seen by the Coast Guard on 19 April. A similar aggregation occurred at the same time of year in 1998, which apparently stayed for a longer period:

> "An aggregation of feeding right whales that persisted for about two weeks was seen just east of Block Island in April 1998. The whales were first seen by fishermen, who reported their observations to the R.I. Division of Fish & Wildlife (RIDFW), who then passed on the reports to NMFS. NMFS directed their aerial surveys to investigate on 14, 19, and 21 April. On the 19th at least 16 whales were present and observed to be feeding at and just below the surface. To date, 11 have been matched to the right whale catalog—mostly males (8) and ranging in age from 2-year-olds to adults. One other whale (an adult female) was identified from the photos (not dated) submitted by RIDFW. The NMFS crew photographed seven animals on the 14th and four have been indentified—all different ones (3 adult males and 1 adult female). Five of the six whales they

> photographed on the 21st have been identified; three were resightings from the 19th and two were new—an adult male and a 2-year-old male. Eighteen different whales were identified in all, but the low rate of resightings suggests that substantially more than 18 whales were feeding in Rhode Island Sound in April 1998." (Kenney and Vigness-Raposa, 2010, p. 48)

Of course, right whales have long been known to occur off southern New England, where they were targets of whaling beginning early in the colonial era. Reeves and Mitchell (1986) summarized the available information on shore whaling for right whales in southeastern Long Island, New York, from 1650 to 1924. Whaling was highly seasonal, from mid-October or November to April or early May. April was the peak month. The whales appeared to be migrating through the region and rarely were sighted for more than a few days at a time, but would occasionally linger—"If they found feed they would stay around for a few days; if not, they would continue on." (Edwards and Rattray, 1956, pp. 18–19) The peak of Long Island shore whaling was from 1670 to 1725, with an average annual take of 20–30 whales from 1700 to 1725. The highest documented take in any single year was 111 whales in 1707.

While 98 individuals in one habitat on the same day may be a modern-day record aggregation for southern New England, there are clearly times when the known feeding grounds around the Gulf of Maine can be occupied by large numbers of right whales, including aggregations of more than 98 animals. The North Atlantic Right Whale Database was queried for single days when large numbers of whales were seen in one feeding ground. There were 48 different occasions when 98 or more right whales were sighted within one habitat on one day, with the numbers of whales ranging from 98 to 251. Most (42) were in the Bay of Fundy, four were in Massachusetts Bay/Cape Cod Bay, and two were in the Great South Channel. The largest was on 25 August 1997 in the Bay of Fundy. The largest aggregation in the Great South Channel was 138 right whales on 4 May 2005, and the largest in Massachusetts Bay was 133 on 15 March 2009. Many of these totals likely include duplicates, since there could have been multiple shipboard and/or aerial surveys on the same days. The analysis was then further restricted to whales seen in one habitat, on the same day, and from the same contributor and survey type. There still were seven aggregations of 98 or more whales, ranging from 99 to 112:

- 4 May 2005, Great South Channel, NMFS aerial survey, 112 whales.
- 6 September 1997, Bay of Fundy, NEAq shipboard survey, 107 whales.
- 25 August 1997, Bay of Fundy, East Coast Ecosystems shipboard (which could have been multiple whale-watching trips), 104 whales.
- 2 September 1999, Bay of Fundy, NEAq shipboard survey, 104 whales.
- 25 August 1997, Bay of Fundy, NEAq shipboard survey, 102 whales.
- 13 July 2005, Great South Channel, NMFS aerial survey, 102 whales.
- 19 August 1999, Bay of Fundy, NMFS shipboard survey, 99 whales.

The “truth” about the largest aggregations is probably somewhere between the combined daily counts and the counts by individual source, since it is unlikely that all surveys in a habitat would sight only the same whales as everyone else. Interestingly, the NMFS aerial survey on 13 July 2005 noted above recorded a single sighting of 100 animals, which by itself was larger than the total number of whales seen on 20 April 2010 in/near Rhode Island Sound.

WHOI researchers reported seeing an aggregation of right whales in the center of Cape Cod Bay (the location was reported only as “between Race Point and Manomet) that they estimated as 70–100 animals, with 30+ near their boat and two separate aggregations of 20+ simultaneously visible in the distance (Schevill *et al*., 1981, 1986; Watkins and Schevill, 1982). In the Great South Channel, Kenney *et al*. (1995) calculated six one-day estimates of right whale abundance from aerial line-transect surveys that were in excess of 100 animals:

- 111 on 15 May 1988,
- 112 on 7 June 1987,
- 133 on 26 May 1987,
- 154 on 9 May 1981,
- 165 on 1 June 1987,
- 179 on 25 May 1984.

With respect to the underlying cause of the 2010 right whale aggregation in Rhode Island Sound, it seems clear that the whales were responding to a rich prey resource. Mark Berman from the NMFS Narragansett Laboratory described a very intense spring phytoplankton bloom in the area (personal communication and quoted in news stories). The bloom was probably related to runoff from record rainfall and flooding in southern New England in late March. The low-salinity, low-density surface layer would increase water-column stability, enhancing phytoplankton productivity. The timing was not right, however, for the increased phytoplankton production to have led to a zooplankton bloom that the right whales were feeding on, which would have taken longer.

Perhaps the run-off from the spring rains in some way enhanced the physical aggregation mechanisms that are responsible for concentrating zooplankton into patches constituting good right whale feeding habitat. It may be relevant that the whales were observed feeding at or near the surface, which would have been in the low-salinity layer at the top of the water column. The last time an aggregation of feeding right whales occurred in Rhode Island Sound was in 1998. Spring (March–May) 1998 was the seventh wettest spring since 1895 for Rhode Island (NOAA-NWS, 1998). Like 2010, winter-spring 1998 was also an El Niño year, which may have had some influence on zooplankton advection into southern New England inner shelf waters.

References

Edwards, E.J., and J.R. Rattray. 1956. *Whale Off! The Story of American Shore Whaling.* Coward-McCann, New York, NY. 324 pp.

Kenney, R.D., and K.J. Vigness-Raposa. 2010. *Marine Mammals and Sea Turtles of Narragansett Bay, Block Island Sound, Rhode Island Sound, and Nearby Waters: An Analysis of Existing Data for the Rhode Island Ocean Special Area Management Plan.* Final Technical Report to the Rhode Island Office of Energy Resources and Rhode Island Coastal Resources Management Council. University of Rhode Island, Graduate School of Oceanography, Narragansett, RI. 340 pp.

Kenney, R.D., H.E. Winn, and M.C. Macaulay. 1995. Cetaceans in the Great South Channel, 1979-1989: Right whale (*Eubalaena glacialis*). *Continental Shelf Research* 15: 385-414.

NMFS–SAS (National Marine Fisheries Service–Sightings Advisory System). 2010. 2010 SAS Sighting Report. National Marine Fisheries Service, Northeast Fisheries Science Center, Woods Hole, MA. http://rwhalesightings.nefsc.noaa.gov/sasreports/2010-SAS-Sighting-Report.pdf (accessed 14 May 2010).

NOAA–NWS (National Oceanic and Atmospheric Administration, National Weather Service). 1998. Spring Wraps Up Warm, With Areas of Extreme Precipitation; La Niña to Impact Fall and Winter Weather. http://www.publicaffairs.noaa.gov/pr98/jun98/noaa98-38.html (accessed 14 May 2010).

Reeves, R.R., and E. Mitchell. 1986. The Long Island, New York, right whale fishery: 1650–1924. *Reports of the International Whaling Commission, Special Issue* 10: 201–220.

Schevill, W.E., K.E. Moore, and W.A. Watkins. 1981. *Right Whale,* Eubalaena glacialis, *Sightings in Cape Cod Waters*. Report WHOI-81-50. Woods Hole Oceanographic Institute, Woods Hole, MA. 16 pp.

Schevill, W.E., W.A. Watkins, and K.E. Moore. 1986. Status of *Eubalaena glacialis* off Cape Cod. *Reports of the International Whaling Commission, Special Issue* 10: 79–82.

Watkins, W.A., and W.E. Schevill. 1982. Observations of right whales, *Eubalaena glacialis*, in Cape Cod waters. *Fishery Bulletin* 80: 875–880.

FY2010 Right Whale Spending Plan Summary

As has been the practice in recent years, the May issue of *Right Whale News* reports the NMFS right whale spending plan for the current fiscal year. The report is based on the Congressional appropriation for FY10 and is provided with the assistance of staff at the Office of Protected Resources, National Marine Fisheries Service, Silver Spring, Maryland, and both the Southeast and Northeast Regional offices.

Table 4. NMFS/NOAA right whale spending plan for FY2010 funds. All dollar amounts are expressed in thousands (*i.e.*, the Total in row one is $8,034,000). Note that the items in parentheses are funds received from sources other than the NOAA/NMFS right whale funds. Key: NEC=Northeast Fisheries Science Center, NER=Northeast Region, SEC=Southeast Fisheries Science Center, SER=Southeast Region, F/PR=Office of Protected Resources, Headquarters level, GC/CS=General Counsel.

	NEC	NER	SEC	SER	F/PR	NOAA GC/CS	Total
Total Received from NMFS	2,581	2274	664	1,808	491	216	8,034
Right whale necropsy	0	0	0	0	0	0	0
Disentanglement Contingency	0	30	0	0	0	0	30
Right whale gear research	0	0	0	0	0	0	0
Aerial surveys (non-state cooperative funded)	733[1]	0	0	285	0	0	1,018
NMFS salaries (Full time equivalents and contract)	903	1,091	254	341	304[2]	187	3,045
Take Reduction Team support	0	150	0	0	0		150
State cooperative funding (including funds for aerial surveys, habitat research, disentanglement, recovery implementation, and enforcement)	0	750	0	1061	0	0	1,811
Ship strike reduction	0	0	0	0	174	0	202
Health assessment	0	0	0	0	0	0	0
Stranding response	0	20	0	0	0	0	20
Habitat research	(80)[3]	0	0	0	0	0	(80)[3]
Whale detection technologies	0	0	400	0	0	0	400
Sightings database/Photo-ID catalog	389	0	0	0	0	0	389
Gear Convergence Assistance and Research for ME	0	(550)[4]	0	0	0	0	(550)[4]
NEAq Consortium for Bycatch Resolution	0	(1,250)[4]	0	0	0	0	(1,250)[4]
Travel and Misc. Administrative costs	556	233	10	121	13	29	969

Table notes:

[1] Aircraft fees and contract labor for surveys only

[2] Includes salaries, benefits, awards and additional administrative cost.

[3] Funding from other sources, and not paid for from NOAA right whale funds

[4] Funding from other sources, and not paid for from NOAA right whale funds—congressional interest funding

Excluding the Congressional-interest items, 38% of right whale monies are directed to NMFS salaries, with the greater portion going to the Northeast Regional Office. NMFS travel and miscellaneous administrative costs account for 12%.

In addition to the items above, additional support for right whale research and conservation comes from a number of sources, also administered by NMFS:

A. Cooperative Memorandum of Understanding (MOU) between NMFS and the Navy, Army Corps of Engineers, and Coast Guard for support of Early Warning Surveys in Florida. This MOU has been in place for several years and provides about $500,000 per year, which is awarded via an RFP and competitive contracts process.

B. Prescott Grants. This competitive grants program supports recovery and treatment of stranded marine mammals, including data collection from living and dead strandings. Awards announced in May and/or June. Approximately $4M is available in the current year. A list of the proposals received for FY10 support is at the website: www.nmfs.noaa.gov/pr/health/prescott.

C. Species Recovery Grants Program. Through this program, NMFS conducts cooperative conservation and recovery implementation with states and tribes to implement priority recovery actions for listed species. This applies to the 68 threatened or endangered species over which NMFS currently has jurisdiction. Approximately $11M to be awarded in the current year. Awards announced in June and/or July.

D. Saltonstall-Kennedy Grants Program. Fishing gear research. Approximately $1.5M is available in the current year. Program announcement made in June and/or July, award announcements made 10-12 months later. There were no proposals related to right whales submitted for the current SK grants cycle. Website is: www.nmfs.noaa.gov/mb/financial_services/skhome.htm.

NMFS Proposes Changes to Research and Public Display Permits

The National Marine Fisheries Service (NMFS) is proposing changes to the regulations that implement permit provisions under the Marine Mammal Protection Act (MMPA). The regulations that may be affected relate to marine mammal permits and include threatened and endangered species. As part of the process, NMFS is preparing an environmental assessment (EA) to evaluate impacts of the proposed revised regulations. Public participation is requested in

the scoping process to help identify alternatives and determine the scope of issues to be addressed. The public comment period ends on 10 June 2010. Written comments should be mailed to P. Michael Payne, Permits Division, Room 13705, Office of Protected Resources, NMFS, 1315 East-West Highway, Silver Spring, MD 20910-3226 or by email to mmpermitregs.comments@noaa.gov. Information, including the scoping document, is located at www.nmfs.noaa.gov/pr/permits/mmpa_regulations.htm.

The 86-page scoping document describes that a ruling was published in 1996 that established basic permit requirements governing the take, import, and export of marine mammals and marine mammal parts for purposes of scientific research, enhancement, photography, and public display. Additional proposed changes were published in 2001 (a rule was never finalized) and notices by NMFS soliciting comments on proposed changes were published in 2007 and 2008.

Many of the proposed changes apply to captive marine mammals and public display, and likely do not affect the right whale community (particularly since Endangered Species Act requirements take precedence). However, of note, proposed changes include definitions for "co-investigator," and "intrusive research;" permit application; issuance criteria; permit reporting; and permit amendments. Of interest, the proposed changes state that not more than one amendment request will be accepted in any 12-month period, not more than two amendments will be made for any 5-year permit period, and no amendment requests will be accepted in the first or last 12 months of a permit period.

As described, most of the proposed changes will likely not directly affect the right whale community. However, in the case where researchers apply for multi-species permits, review and comment may be warranted.

Right Whale Threats and Litigation

Contributed by Sharon B. Young
Marine Issues Field Director, The Humane Society of the U.S. (HSUS)

A number of threats are looming for North Atlantic right whales. As has often been the case in the past, litigation continues to be a necessary tool to ensure the protection of this endangered species.

Offshore Energy: The Obama administration announced plans to expand exploration and extraction of oil and gas off the U.S. East Coast, with the first lease sale considered for the waters offshore of Virginia. The recent disaster in the Gulf of Mexico has stalled these plans, but it remains to be seen whether seismic exploration and offshore rigs will become part of the right

whale's world. The expansion of offshore alternative energy also raises concerns. The state of Maine is proposing to erect up to 1,000 deep-water wind turbines, each anchored by numerous heavy chains that will be placed in areas with documented right whale sightings and would include an area of transit to the Bay of Fundy. Of particular concern is the potential for habitat displacement should right whales avoid these newly developed areas and move into areas used more heavily by fisheries or shipping. Additional sites are being considered in the mid-Atlantic migratory corridor and in Rhode Island sound, where nearly 100 right whales were sighted this spring (see article on p. 5, this issue), and in Nantucket Sound, and which are now the subjects of litigation by the Alliance to Protect Nantucket Sound, Animal Welfare Institute, and others. Additionally, an offshore windfarm is also proposed off the shore of Jekyll or Tybee islands in Georgia in the vicinity of the southeast critical habitat calving area.

Protecting Critical Habitat: In September 2009, a coalition of environmental and animal protection groups (including HSUS, Whale and Dolphin Conservation Society, Defenders of Wildlife, and Center for Biological Diversity), petitioned to expand right whale critical habitat in the Northeast and Southeast, and to establish critical habitat in the migratory corridor used by right whales. The proposed expansion would encompass areas that recent data indicate are key to their survival. The National Marine Fisheries Service (NMFS) did not respond to the petition within the required 90 days and, on 25 May 2010, the groups filed suit in the District of Massachusetts federal court in Boston. Officials in the NMFS have stated that critical habitat may no longer exist due to the 2008 rulemaking that separated North Atlantic right whales as a species from North Pacific right whales. The groups dispute this contention.

Assessing Entanglement Risk: The 2007 regulations mandating the use of sinking line in trap and pot fisheries raised hope that exposure and risk of entanglement will be reduced. NMFS has not yet completed a biological opinion that would assess the threats posed by the fisheries and provide a means of evaluating the success of its risk-reduction measures. As a result, on 26 March 2010, HSUS and Defenders of Wildlife issued a notice of intent to sue NMFS over its failure to issue a biological opinion as part of its ESA Section 7 consultation obligations regarding impacts of the trap/pot and various gillnet fisheries on right whales and other endangered large whales. Although NMFS stated in 2003 that this consultation was underway, and a take-reduction plan was issued in 2007, NMFS has failed to follow mandates of the ESA by failing to issue a biological opinion and any necessary mitigation measures.

Undersea Warfare Training Range: After initially announcing a preference for locating an Undersea Warfare Training Range off North Carolina, the U.S. Navy changed the preferred site to an area only approximately 20 nautical miles from the eastern edge of designated right whale critical habitat off the coast of Florida. Although their Environmental Impact Statement concluded that right whales were unlikely to traverse or use the area, they also admitted that no focal study of the area had been undertaken. In January 2010, a coalition of 12 environmental and animal welfare organizations (among them HSUS, WDCS, Natural Resources Defense

Council, Southern Environmental Law Center, and Defenders of Wildlife) filed suit against the Navy and NMFS charging violations of the ESA, the National Environmental Policy Act, and the Administrative Procedures Act. The suit describes the agencies' failure to properly consider risk to right whales and maintains that their approach was flawed and illegal because the agencies analyzed only the impacts from construction before approving the project, and delayed analyzing the impacts from the operations at the site to some future time. Since approving the site, the Navy has funded surveys of the area that resulted in a number of right whale sightings (refer to article on page 4, this issue), including the well-publicized sighting of a right whale giving birth in this offshore area.

Given the well-known threats to the survival of right whales, the environmental community advocates proper environmental impact review, and as necessary, continues to take legal action to ensure proper protection.

Calendar

The May 2010 Right Whale Recovery Plan Implementation Team meeting was cancelled (due to people and resources deployed to the Gulf of Mexico oil rig explosion and leak event) and will not be rescheduled. Some of the agenda items will be incorporated into the fall (October) meeting.

3-4 November 2010. North Atlantic Right Whale Consortium Annual Meeting, New Bedford Whaling Museum, New Bedford, Massachusetts. Abstracts submission deadline 1 September. Website: www.rightwhaleweb.org.

Scientific Literature and Reports

Aaris-Sørensen, K., K.L. Rasmussen, C. Kinze and K.S. Petersen. 2010. Late Pleistocene and Holocene whale remains (Cetacea) from Denmark and adjacent countries: Species, distribution, chronology, and trace element concentrations. Marine Mammal Science 26(2):253-281.

Allen, B.M. and R.P. Angliss. 2010. Alaska Marine Mammal Stock Assessments, 2009. NOAA Technical Memorandum NMFS – AFSC 206; National Marine Fisheries Service, Seattle, WA, 276 pp. Final report available online at http://www.nmfs.noaa.gov/pr/sars/ or from Robyn Angliss, Alaska Fisheries Science Center, 7600 Sand Point Way, BIN 15700, Seattle, WA 98115.

Brillant, S.W. and E.A. Trippel. 2010. Elevations of lobster fishery groundlines in relation to their potential to entangle endangered North Atlantic right whales in the Bay of Fundy, Canada. Journal of Marine Science 67(2):355-364.

Browning, C.L., R.M. Rolland, and S.D. Kraus. *In press*. Estimated calf and perinatal mortality in western North Atlantic right whales (*Eubalaena glacialis*). Marine Mammal Science.

Caretta, J.V. *et al*. 2010. U.S. Pacific Marine Mammal Stock Assessments: 2009. NOAA Technical Memorandum NMFS–SWFSC 453; National Marine Fisheries Service, La Jolla, CA, 341 pp. Final report available on line at http://www.nmfs.noaa.gov/pr/sars/ This report does not include *Eubalaena japonica*; see Allen and Angliss, above, for North Pacific right whale stock assessment.

Clark, C.W., W.T. Ellison, B.L. Southall, L. Hatch, S.M. Van Parijs, A. Frankel and D. Ponirakis. 2009. Acoustic masking in marine ecosystems: intuitions, analysis and implications. Marine Ecology Progress Series 395:201-222.

Hamilton, P.K., and L.A. Cooper. *In press*. Changes in North Atlantic right whale (*Eubalaena glacialis*) cow-calf association times and use of the calving ground: 1993-2005. Marine Mammal Science.

Leandro, L.F., R.M. Rolland, P.B. Roth, N. Lundholm, Z. Wang and G.J. Doucette. 2010. The exposure of the North Atlantic right whale (*Eubalaena glacialis*) to the marine algal biotoxin, domoic acid. Marine Ecology Progress Series 398:287-303.

Leandro, L.F., G.J. Teegarden, P.B. Roth, Z. Wang and G.L. Doucette. 2010. The copepod *Calanus finmarchicus*: a potential vector for trophic transfer of the marine algal biotoxin, domoic acid. Journal of Experimental Marine Biology and Ecology 382(2):88-95.

McLeod, B.A. and B.N. White. 2010. Tracking mtDNA heteroplasmy through multiple generations in the North Atlantic right whale (*Eubalaena glacialis*). Journal of Heredity 101(2):235-239.

Richards, R. 2009. Past and present distributions of southern right whales (*Eubalaena australis*). New Zealand Journal of Zoology 36(4):447-459.

Trathan, P.N. and K. Reid. 2009. Exploitation of the marine ecosystem in the sub-antarctic: historical impacts and current consequences. Papers and Proceedings of the Royal Society of Tasmania 143(part 1-2):9-14.

Waring, G.T., E. Josephson, K. Maze-Foley and P.E. Rosel, editors. 2009. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments–2009. NOAA Technical Memorandum NMFS–NE 213; National Marine Fisheries Service, Woods Hole, MA, 528 pp. Final report available on line at http://www.nmfs.noaa.gov/pr/sars/ or from Gordon Waring, Northeast Fisheries Science Center, 166 Water Street, Woods Hole, MA 02543.

Weinrich, M., C. Pekarcik and J. Tackberry. 2010. The effectiveness of dedicated observers in reducing risks of marine mammal collisions with ferries: A test of the technique. Marine Mammal Science 26(2):460-470.

Right Whale News

Right Whale News is a publication of Associated Scientists at Woods Hole. It is disseminated online through the courtesy of the North Atlantic Right Whale Consortium. The editor is Jim Hain. The editorial board consists of Julie Albert, Mark Dittrick, Tim Frasier, Robert Kenney, Scott Kraus, Bill McWeeny, Hans Neuhauser, Susan Parks, and Melissa Patrician.

Current and back issues of *Right Whale News* published between 1994 and 2009 are available at the North Atlantic Right Whale Consortium website, www.rightwhaleweb.org—select the *Right Whale News* tab.

To submit ideas, article topics, and comments, contact Editor Jim Hain at jhain@earthlink.net and place "RWN Editorial" in the subject line. To subscribe, contact Heather Pettis at hpettis@neaq.org, and place "RWN Subscribe" in the subject line.

Citing *Right Whale News*: The requested format for citations from *Right Whale News* is: Right Whale News Volume(number): page(s). Alternatively, a less formal citation may simply use month and year of issue.